



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Our Case No. 13051US03)

Application Of:

KNOWLES ET AL.

Serial No.: 09/998,220

Filed: November 20, 2001

Examiner: Not Assigned

Group Art Unit: 2674

For: ACOUSTIC WAVE TOUCH
ACTUATED SWITCH WITH
FEEDBACK

CERTIFICATE OF "EXPRESS MAIL"

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Brenda K. Johnson

(Typed or printed name of person mailing paper or fee)

Brenda K. Johnson
(Signature of person mailing paper or fee)

TRANSMITTAL OF FORMAL DRAWINGS

Assistant Commissioner for Patents
Box Missing Parts
Washington, D.C. 20231

Dear Sir:

In response to the Notice to File Missing Parts of Application dated January 28, 2002, enclosed herewith for filing are twelve (12) sheets of inked formal drawings for this application. It appears that all informalities noted by the Examiner have been met.

Respectfully submitted,

Dated: April 22, 2002

By Jean Dudek Kuelper
Jean Dudek Kuelper
Reg. No. 30,171

McAndrews, Held & Malloy, Ltd.
500 West Madison St., 34th Floor
Chicago, Illinois 60661
(312) 775-8000

FIG. 1

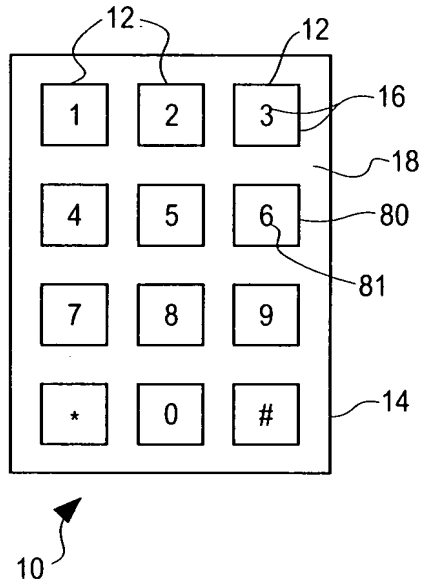
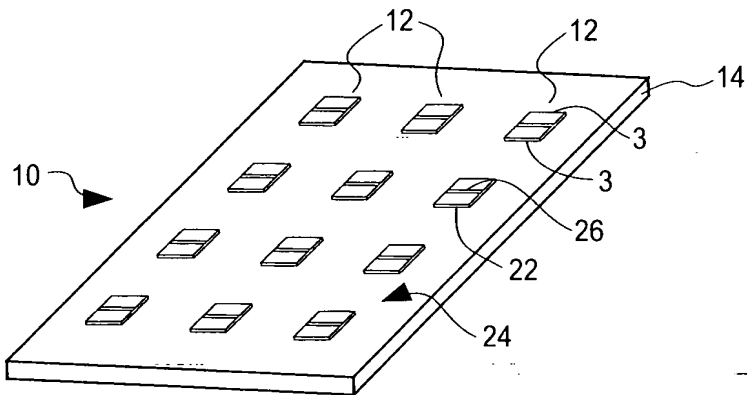


FIG. 2



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1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

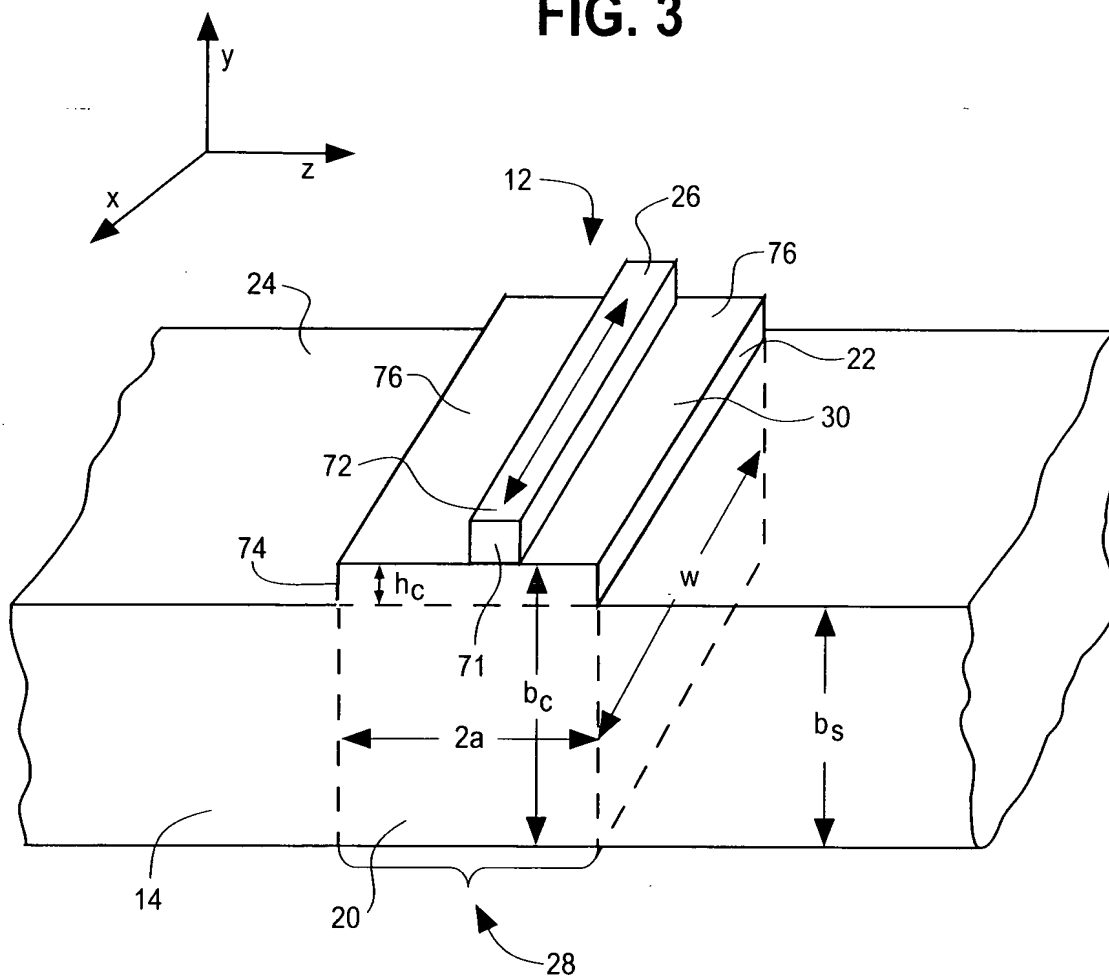


FIG. 4

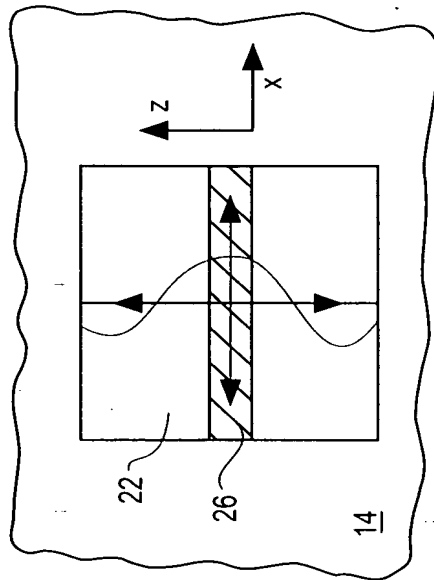


FIG. 5

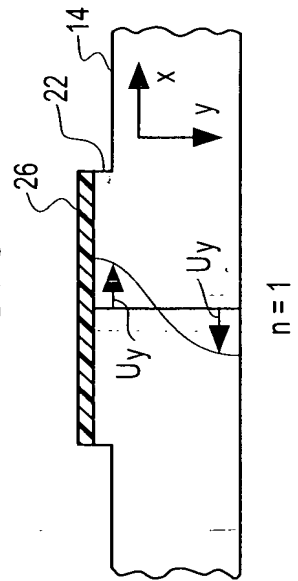


FIG. 6

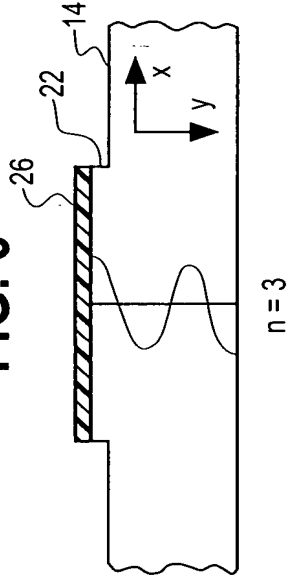


FIG. 7

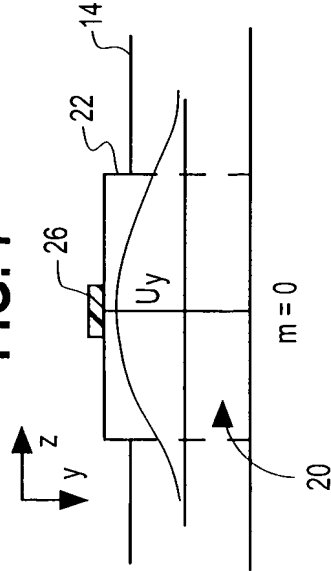
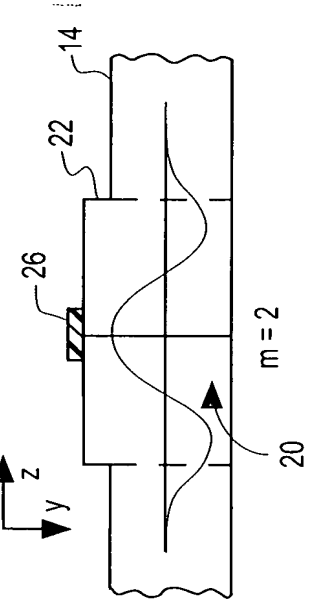


FIG. 8



The schematic diagram illustrates a control circuit for a microprocessor system, organized into three main functional blocks: OSCILLATOR, MUX, and OSC. DETECT.

- OSCILLATOR:** This block contains an oscillator circuit. It features a 68kΩ resistor connected to a +5V supply. The oscillator core consists of an inverter (42) with a feedback loop containing a 39kΩ resistor (54) and a 200pf capacitor (56). The inverter's output is connected to a 47kΩ resistor (48) and a 4.7kΩ resistor (49). The input of the inverter is connected to a 5.6kΩ resistor (58) and a 4.7kΩ resistor (47). The output of the oscillator is connected to a 33kΩ resistor (50) and a 200pf capacitor (52).
- MUX:** This block contains a multiplexer (MUX) controlled by a CONTROL BUS. The multiplexer has multiple outputs, each connected to a 26-pin connector (26).
- OSC. DETECT:** This block contains an oscillator detect circuit. It features a 10kΩ resistor connected to a +5V supply. The circuit includes a diode (62) and a 10kΩ resistor (64). The output of the oscillator detect circuit is connected to a 10kΩ resistor (64) and a 10kΩ resistor (64).

FIG. 11

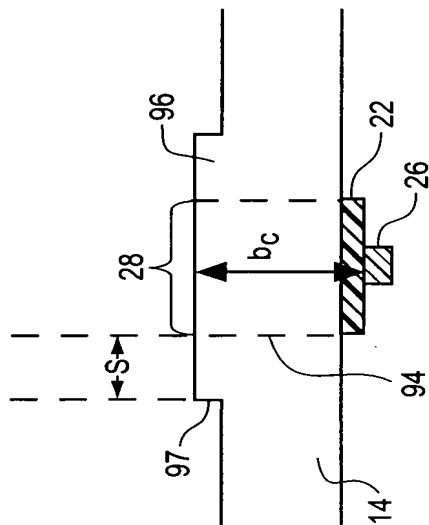


FIG. 10

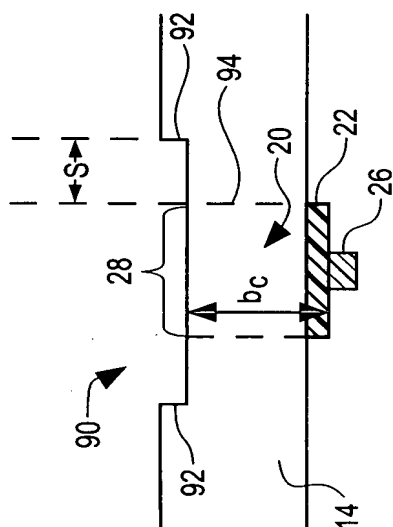


FIG. 12

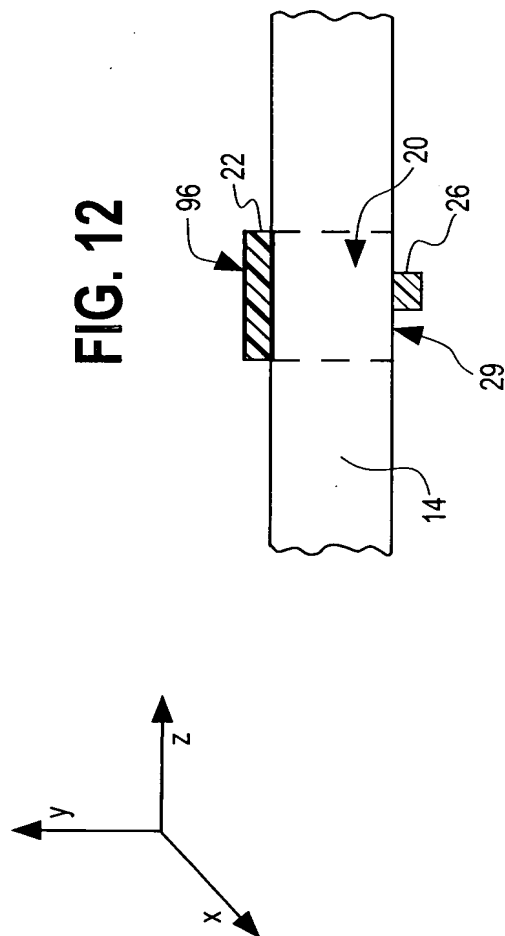


FIG. 13

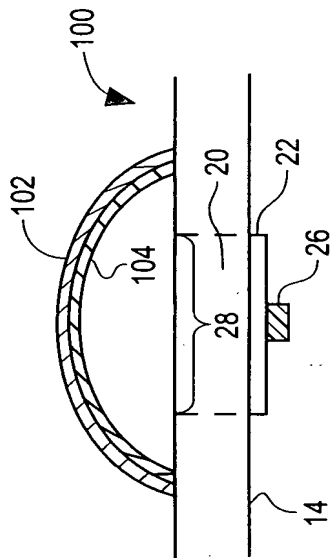


FIG. 14

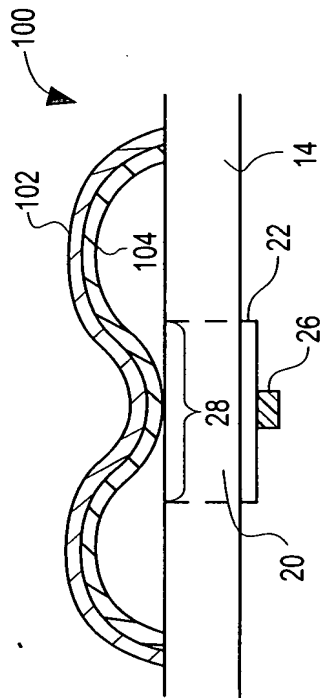


FIG. 15

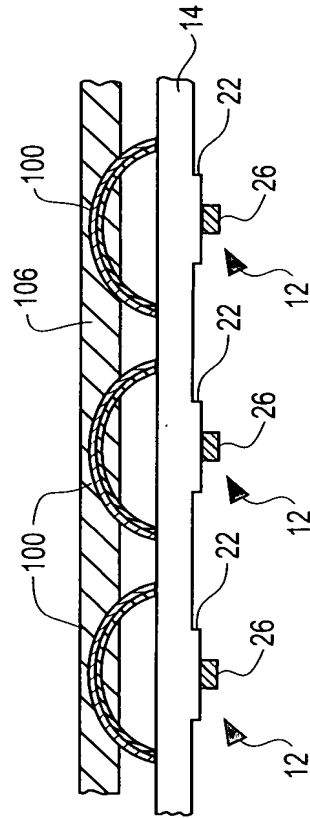


FIG. 16

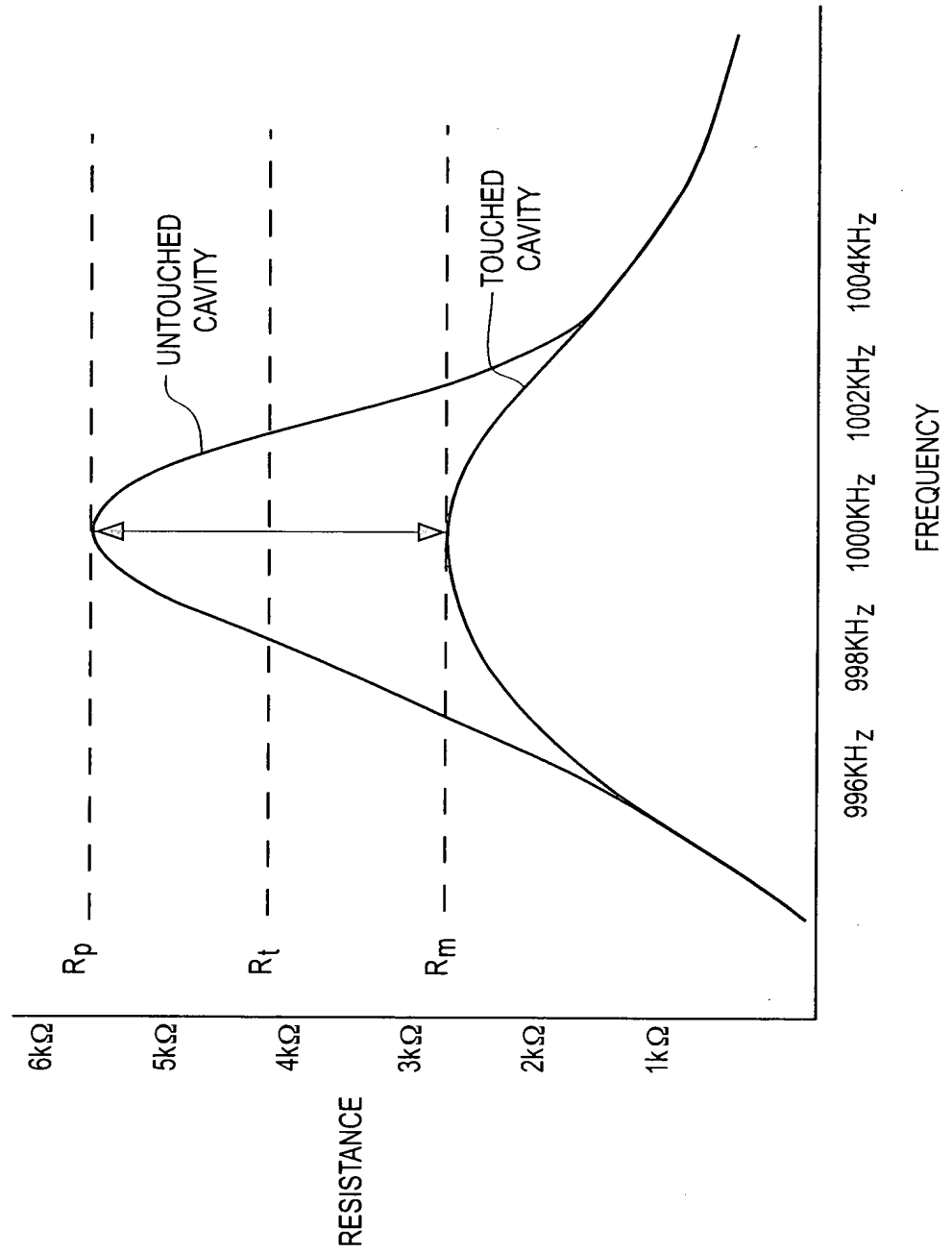


FIG. 17

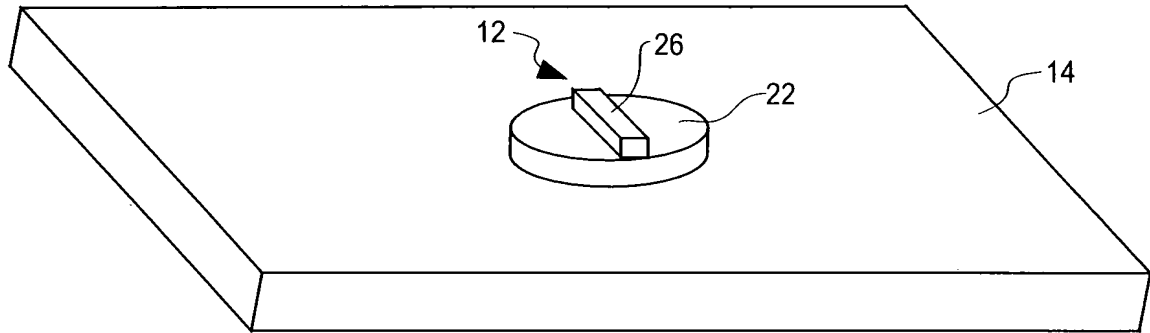


FIG. 18

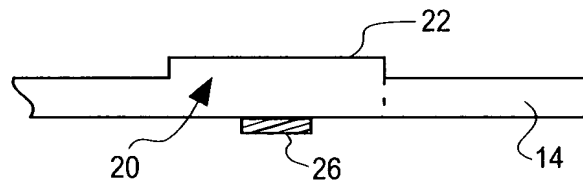


FIG. 19

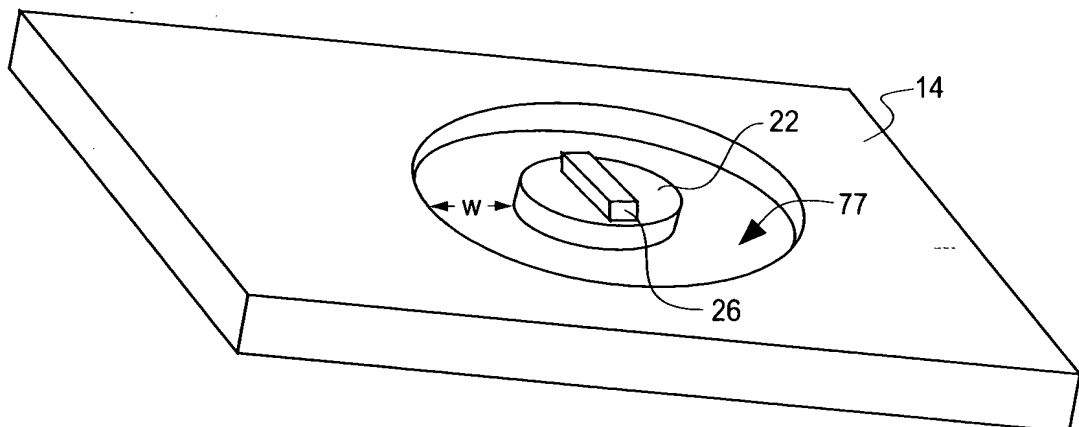


FIG. 20

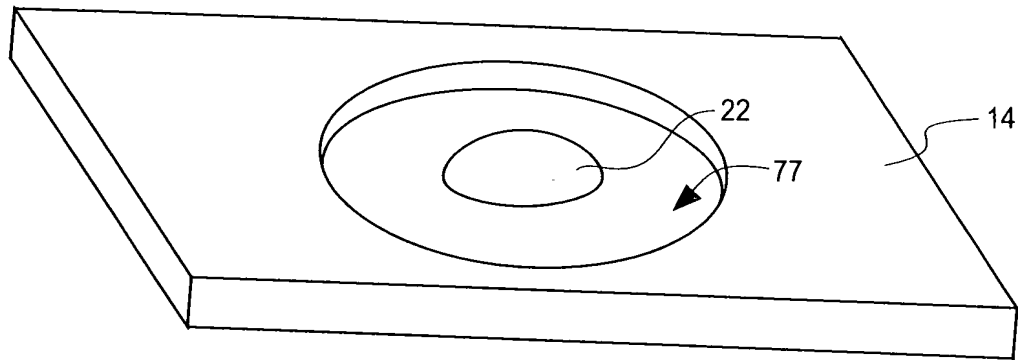


FIG. 21

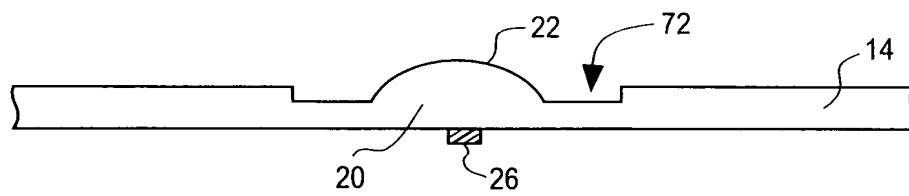


FIG. 22

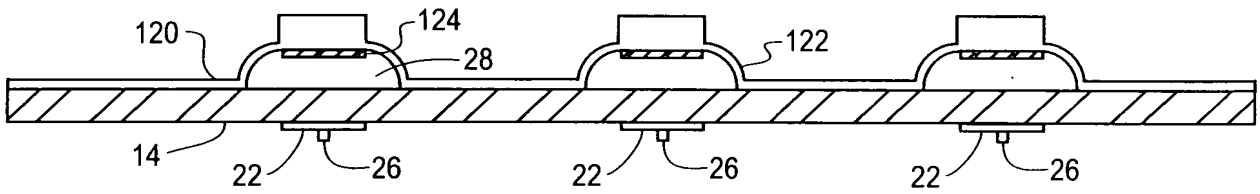


FIG. 23

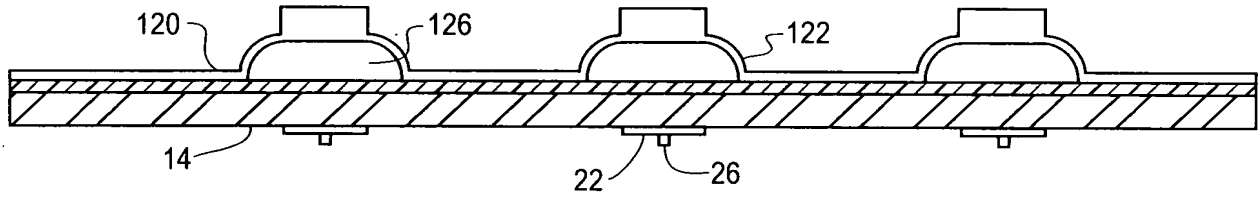


FIG. 24

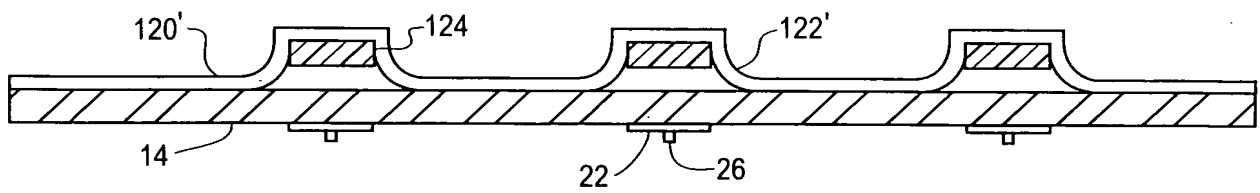


FIG. 25

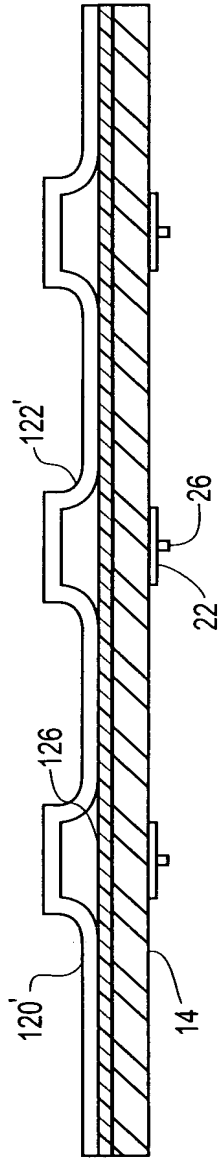


FIG. 26

